

CLAIMS

What is claimed is:

1. A wet type electrophotographic image forming device comprising:
 - a printer body;
 - a discharge passage to discharge air inside of the printer body to an outside;
 - a blower arranged in the discharge passage, to guide the air inside of the discharge passage; and
 - a catalyst oxidation filter arranged in the discharge passage, and comprising a matrix coated with an oxidation catalyst, to deodorize the air which is guided through the discharge passage.
2. The wet type electrophotographic image forming device of claim 1, wherein the oxidation catalyst comprises at least one metal selected from the group consisting of Pt, Pd, Ru, Cu, Cr, Ce, Mn, Fe, Ni, Sn, Zn, Al, Zr, W, and V.
3. The wet type electrophotographic image forming device of claim 1, wherein the oxidation catalyst comprises at least one metal selected from the group consisting of Pt, Pd and Ru.
4. The wet type electrophotographic image forming device of claim 1, wherein the catalyst oxidation filter further comprises a heater to transmit heat to the matrix.
5. The wet type electrophotographic image forming device of claim 4, wherein the matrix has a metallic honeycomb structure.

6. The wet type electrophotographic image forming device of claim 4, wherein the matrix has a honeycomb structure made of an element selected from the group consisting of γ - Al_2O_3 , TiO_2 , ZrO_2 , SiO_2 , $\text{SiO}_2\text{-Al}_2\text{O}_3$.

7. The wet type electrophotographic image forming device of claim 4, wherein the heater surrounds an outer surface of the matrix in contact thereto.

8. The wet type electrophotographic image forming device of claim 4, wherein the heater has an identical shape with a shape of the matrix in cross section, and is inserted in the matrix.

9. The wet type electrophotographic image forming device of claim 4, wherein the heater has an identical shape with a shape of the matrix in cross section, and is arranged at either a front or a back of the matrix.

10. The wet type electrophotographic image forming device of claim 1, wherein the matrix is a heating mat comprised of a metallic heating element.

11. A wet type electrophotographic image forming device comprising:
a body;
a discharge passage to discharge air inside of the body to an outside of the body;
a catalyst oxidation filter arranged in the discharge passage, and comprising a matrix coated with an oxidation catalyst, to deodorize the air which is in the discharge passage.

12. The wet type electrophotographic image forming device of claim 11, further comprising:

a blower arranged in the discharge passage, to guide the air inside of the discharge passage.

13. The wet type electrophotographic image forming device of claim 11, further comprising a fusing roller in a vicinity of the discharge passage to fuse an image onto a paper.

14. The wet type electrophotographic image forming device of claim 11, wherein the catalyst oxidation filter comprises a honeycomb structure.

15. The wet type electrophotographic image forming device of claim 11, wherein the catalyst oxidation filter comprises a heating mat.

16. The wet type electrophotographic image forming device of claim 14, further comprising a heater to surround the honeycomb structure.

17. The wet type electrophotographic image forming device of claim 16, wherein the oxidation catalyst and the heater each comprise a cylinder or a hexahedron in cross section.

18. The wet type electrophotographic image forming device of claim 14, wherein the honeycomb structure is made of a metal.

19. The wet type electrophotographic image forming device of claim 14, wherein the honeycomb structure is made of a compound selected from the group consisting of γ - Al_2O_3 ,

TiO₂, ZrO₂, SiO₂, and SiO₂-Al₂O₃.

20. The wet type electrophotographic image forming device of claim 15, wherein the heating mat is a non-woven fabric or a sponge of metallic materials.

21. An apparatus comprising:

an image forming unit to form an image on a medium with a liquid toner comprising toner particles and a carrier;

a fusing unit to fuse the image on the medium and evaporate the carrier, thereby generating a hydrocarbon vapor; and

a catalyst oxidation filter to decompose the hydrocarbon vapor into carbon dioxide and water.